

Applicant: Richard Gerardus F. Visser et al.
Serial No.: 10/009,876
Filed: May 6, 2002
Page 3 of 8

Amendments to the Claims:

With this Request for Continued Examination, applicants are requesting entry of the Amendment and reply filed on March 21, 2006. The following amendments supplement the Amendment filed on March 21, 2006.

Please cancel Claims 44 and 46 without prejudice or disclaimer, and amend Claims 39 and 58 as set forth below.

1-38. (Canceled)

39. (Currently amended) A genetic construct comprising (a) a first nucleotide sequence encoding an enzyme that interacts with starch or starch granules, (b) a second nucleotide sequence encoding a bacterial starch binding domain, ~~and~~ (c) a promoter that directs for expression in a plant to a seed, leaf, root, tuber, stem, stalk, fruit, grain, and/or flower of a fusion protein comprising the enzyme and the bacterial starch binding domain, and (d) a region encoding a linker sequence, wherein the linker sequence is present in the fusion protein between the enzyme and the bacterial starch binding domain, wherein the construct is suitable for transforming a plant, and wherein the plant transformed with the construct expresses a fusion protein comprising the enzyme, the linker and the bacterial starch binding domain.

40. (Previously presented) The genetic construct of claim 39, wherein the enzyme is a potato granule bound starch synthase I (GBSS1).

41. (Previously presented) The genetic construct of claim 39, wherein the bacterial starch binding domain is a starch binding domain of a cyclodextrin glycosyltransferase (CGTase) from *Bacillus circulans*.

42. (Previously presented) The genetic construct of claim 39, further comprising a region encoding a signal sequence, wherein the signal sequence causes the fusion

Applicant: Richard Gerardus F. Visser et al.
Serial No.: 10/009,876
Filed: May 6, 2002
Page 4 of 8

protein to be directed to a starch containing cell.

43. (Previously presented) The genetic construct of claim 42, wherein the signal sequence is the potato GBSS1 signal sequence.

44. (Canceled)

45. (Previously presented) A plant transformed with the genetic construct of claim 39, or a descendent of the plant, wherein the descendent of the plant contains the genetic construct and expresses the fusion protein.

46. (Canceled)

47. (Previously presented) The plant of claim 45, wherein the fusion protein is expressed in a tuber of the plant.

48. (Previously presented) The plant of claim 45, wherein the fusion protein is expressed in a flower of the plant.

49. (Previously presented) The plant of claim 45, wherein the plant is selected from the group consisting of potato, sweet potato, cassava, pea, taro, sago, yam, banana, rice, maize, wheat and barley.

50. (Previously presented) A seed, tuber, seedling, or other cultivating material from the plant of claim 45, wherein the seed, tuber, seedling, or other cultivating material contains the genetic construct and expresses the fusion protein.

51-53. (Canceled)

54. (Previously presented) A plant expressing the fusion protein of claim 58.

55. (Previously presented) A seed, tuber, seedling, or other cultivating material

Applicant: Richard Gerardus F. Visser et al.
Serial No.: 10/009,876
Filed: May 6, 2002
Page 5 of 8

from the plant of claim 54, wherein the seed, tuber, seedling, or other cultivating material expresses the fusion protein.

56. (Previously presented) A method for expressing a fusion protein in a plant, the method comprising the steps of transforming the plant with the genetic construct of claim 39 and allowing the plant transformed with the genetic construct to express the fusion protein, thereby expressing the fusion protein in the plant.

57. (Previously presented) The method of claim 56, wherein the plant is selected from the group consisting of potato, sweet potato, cassava, pea, taro, sago, yam, banana, rice, maize, wheat and barley.

58. (Currently amended) A method for increasing the affinity for starch and/or starch granules of an enzyme that can interact with starch and/or starch granules, the method comprising the steps of transforming a plant with a fusion protein, wherein the fusion protein comprises the said enzyme, and at least one bacterial starch binding domain, and a linker sequence between the enzyme and the bacterial starch binding domain, and allowing the plant to express the fusion protein, thereby increasing the affinity of the enzyme for starch and/or starch granules.